UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
2142	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-45* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-45* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *20 July 2001* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Claim Objections

1.   Claims 13-28,30-33 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should not depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims has not been further treated on the merits.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 34-37,39,41-43,45 rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 5,7-12,38,44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites "a client type relationship", lines 2-3 and "a client type relationship" lines 4-5. It is not "a client type relationship", lines 2-3 is same or different from "a client type relationship" lines 4-5.

Claim 7 recites "receiving request from the client on the second connection", lines 2 and "routing said request along the first connection to the service application, server or service network" lines 2-4 which contradictes claim 3 which recites "service application on a client establishing a first type connection with an intermediary" lines 2-3 and "service application on the server establishing a second type connection with an intermediary" lines 5-7. It is not that claim 3 states that first connection is between client intermediary and the second connection is between client server and the intermediary

while claim 7 states that the first connection is between client server and the intermediary and the second connection is between client and intermediary";

Claim 8 has the same above problem with claim 3.

Claim 10 has the same above problem with claim 3.

Claim 11 has the same above problem with claim 3.

Claim 12 has the same above problem with claim 3.

6.   The term "optionally" in claims 38, & 44 are a relative term which renders the claim indefinite. The term "optionally" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that f form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 1-5,7-11,29,38,40 are rejected under 35 U.S.C. 102(e) as anticipated by Bector et al (US Patent 6,687,732).

As to claim 1, Bector discloses a method of establishing communication between a client application to a service application on another client (Fig. 1), the method comprising:

a service application or component associated therewith on the other client establishing a first client-type connection with an intermediary, intermediary apparatus [Fig. 1, item 116(proxy) establishes a first type connection 107 with routing device 110 (intermediary)], and the client application on the one client establishing a second client type connection with the intermediary [Fig. 1, client 100 (proxy) establishes a second type connection 104 with routing device 110 (intermediary)].

Claim 2 refer to claim 1 rejection.

As to claim 3, Bector discloses a method of connecting, communicating or

establishing communication between a client application on a server or service network and a service application on a client, the method comprising the service application or a component associated therewith establishing a first client-type connection with an intermediary intermediary server or intermediary apparatus [Fig. 1, client 100 (proxy) establishes a second type connection 104 (first type connection) with routing device 110 (intermediary apparatus)] and a client on the server or service network or a component associated therewith establishing a second client-type connection with the intermediary server or intermediary apparatus [Fig. 1, item 116(proxy) establishes a second type connection 107 with routing device 110 (intermediary appratus)].

Claim 4 refer to claim 1 rejection.

Claim 5, [As best understood by the Examiner] refer to claim 1 rejection. Client computer 100 is one machine and the proxy server is another machine.

As to claim 7, Bector discloses further comprising receiving a communication, data or request from the client on the second connection [the router 110 intercepts request from client 100 sent on connection 104 (second connection) (fig. 1, col. 2, lines 21-31)] and routing the communication or request along the first connection to the service application, server or service network or component associated therewith [the router 110 forward the intercepted messages to the proxy on the connection 107 (first connection) (Fig. 1, col. 2, lines 27-23)].

As to claims 8, Bector further discloses comprising receiving communication or response from the service application, server or service network or component associated therewith on the first connection [the intercepting device 110 delivers responses to client requests the responses are obtained by the proxy from server 124 and delivered to routing device 110 through connection 107 (first connection) which forwarded to the client (Fig. 1, col. 1, lines 52-64, col. 2, lines 21-31)] and routing the communication or response along the second connection to the client or client application (Fig. 1, col. 1, lines 52-64, col. 2, lines 21-31).

As to claim 9, Bector discloses wherein the component associated with the service application, server or service network is a proxy client or proxy client

component with a client relationship with the service application, server or service network [Fig. 1, 107 is a proxy server with a client relationship with a client 100 and the origin server 124].

As to claim 10, Bector further discloses wherein the proxy client or proxy client component receives the communication, data or request and passes the request to the associated service application, server or service network and forwards any response along the fist connection to the intennediary [Fig. 1, col. 1, lines 44-64, col. 2, lines 21-31)].

As to claim 11, Bector further discloses wherein the proxy client or proxy client component;

a) Acts as a client to the intermediary server and the service application, server or service network [Fig. 1, proxy server 114is a client fo the routing device 110 (intermediary server) because the router 110 routes intercepted requests to the proxy server 114].

b) Initiates the first connection or subsequent connection with the intermediary server for receiving client requests [proxy server 114 establishes connection 107 (first connection) with router 110 (intermediary server) to forward clients requests from router to proxy server];

c) Operably waits for the client request to be forwarded through the first connection [Fig. 1, col. 2, lines 21-31)]. d) Forwards the client request to the service application, server or service network [col. 2, lines 21-31] and

e) Forwards any responses from the service application, server or service network back to the intermediary server (col.1, lines 33-64).

As to claim 29, Bector discloses a method of Internet or Internet-type communication, the method comprising a first client or server establishing a client-type relationship with an intermediary server[Fig. 1, client 100 (first client) routing device 110 (intermediary apparatus)] , a second client or server establishing a client-type relationship with the intermediary server [Fig. 1, original server 1240 (second server) establishes connection 108 (relationship) with routing device 110 (intermediary server)] and the intermediary server facilitating communications between the first client or server

[the routing device is intercepting requests (facilitating communication) sent by client 100 (first client) to origin server 124 (second server) (col. 2, lines 21-31)] and the second client or server through the use of an intermediary and proxy client component

[Fig. 1, routing device 110 (intermediary) and proxy server 114 are used with client 110 and origin server 124].

As to claim 38, Bector discloses a proxy client or proxy client component comprising:

a) Means to act as a client to a service application, server or service network [Fig. 1, client 100, origin server 124(server)].

b) Means to act as a client to an intermediary server [Fig. 1, routing device 110, (intermediary server)].

c) Means to inizitiate a first or subsequent connection with the intermediary server [Fig. 1, a route 107 (first connection) is established between the proxy 114 and the routing device 110 (intermediary server)].

(d) Means to wait and receive a client request through the first connection [clients request intercepted by routing device 110 is forwarded to the proxy through connection 107 (col. 2; lines 21-31)].

e) Means to forward the client request to the service application, server or service network [the proxy 114 forwards the clients's request for a document to the origin server 124 (col. 2, lines 42-46)]; and

f) Optionally, means to forward any response from the service application, server or service network back to the intermediary server [the document (response) is deliveried to the client (col. 1, lines 52-64)].

As to claim 40, Bector discloses a server configured to act as an intermediary server, the server comprising:

a) Means to allow a first client-type connection to be established with the server [fig. 1, client 100 establishes a connection 104 (first client type connection) with the routing device 110 (intermediary server)]

b) Means to allow a second client-type connection to be established with the server [fig. 1 proxy server 114 (server) establish a connection 107 (second client type connection) with routing device 110 (intermediary server)]; and

c) Means to route a request from the first client-type connection to the second client type connection for the purpose of processing the first request [the routing device 110 , (intermediary server) routes a client request received on connection 104 (first connection) to the proxy server 114 (server) through connection 107 (second connection) (Fig. 1, col. 2, lines 21-31)].

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action: ·

> · (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 6,12, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bector et al (US Patent 6,687,732) and applied to claim 1 above in view of Coile et al. (US. Patent. 6,006,268).

As to claim 6, refer to claim 1 rejection. Proxy server is a first machine and client 100 is a second machine.

Bector does not disclose a Virtual Private network.

· Coile discloses the use of a proxy server in a client server private network (col. 6, lines 52-55, col. 17, lines 40-54) that uses virtual Tcp connection (col. 8, lines 59-62) (i.e. virtual private network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Coile's teachings to modify the method of Bector by using a virtual network in order to perform user authentication security (col. 6, lines 54) and perform packet integrity checking, media control and management (col. 17, lines 29-30).

As to claim 12, Bector further discloses establishing the first connection, preferably holding open said first connection, establishing the second connection, receiving a request from the client on the second connection and routing said request along the first connection to the service application, server or service network [Fig. 1, 107 first rout between proxy 114 and routing device 110, the routing device 110, the routing device 110 receives a client request on connection 104 (second connection/established between client 100 and routing device 110, the routing device forwards the client request to the proxy server on connection 107 (first connection)].

Bector does not disclose preferably holding open said first connection.

Coile discloses a proxy server in a server client system where the proxy does not terminate connections to the client and server (col. 3, line 6-col. 4, line 3) and the connection is maintained between client and the server (col. 8, lines 58-62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Coile's teachings to modify the method of Bector by holding open the first connection in order to speed up the transfer of requests from the router to the proxy.

As to claim 44, Bector discloses modified router or modified router component comprising:

a) Means to allow the capture of client network request and service network response datagams [fig. 1; routing device 110 intercepts client request messages (datagrams) and forwards responses (responses datagrams) from a server to client).

b) Means to encapsulate datagrams interpretable by an intermediary, intermediary server or intermediary apparatus (col. 5, lines 56-col. 6, line 10); and

c) Means to forward an encapsulated request to the intermediary for further forwarding through a proxy client type connection with the intermediary [Fig. 1, the encapsulate request is intercepted by the routing device 110 (intermediary server) and forwarded to proxy server on connection 107].

Bector does not disclose an optional virtual addressing information.

Coile discloses a proxy server in a client server system that uses virtual Tcp (virtual addressing information) (col. 8, lines 58-62).
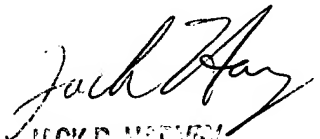
It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Coile's teachings to modify Bector's router in order to maintain packet's integrity checking and media control and management.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu Le whose telephone number is (571) –272-3897. The examiner can normally be reached on Monday to Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey, can be reached on (571) 272-3896. The fax phone number for this Group is (571) 272-3896.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Hieu Le